resentative at the remote location, the user can enter data through a keyboard which causes the device to actually transmit data representing certain operating parameters to the remote location for analysis where the expert can then orally communicate the findings to the user in order to assist the user in properly using and adjusting the equipment.

The embodiments described in the figures and the detailed description of the drawings are intended as examples rather than as limitations. Thus, the description of the invention is not intended to limit the invention to the particular embodiment disclosed but it is intended to encompass all equivalents and subject matter within the spirit and scope of the invention as described above and as claimed in the appended claims.

I claim:

1. An interactive medical laboratory specimen test system for communicating with a source of assistance remote from said test apparatus comprising:

a. diagnostic apparatus for use in performing a diagnostic routine on a specimen, said apparatus generating signals representing both results of said diagnostic routine and selected operating parameters such as operating voltage levels and calibration data,

b. a user activated switch on said diagnostic apparatus for causing automatic dialing of a predetermined telephone number to contact said source of assistance when said switch is activated,

c. means for converting said generated signals to data for transmission to said source,

d. keyboard means for generating a control code to select one of said generated signals,

e. gate means coupled to said signal converting means and responsive to said control code for enabling transmission of said converted data representing a selected one of said signals to said source represented by said predetermined telephone number for analysis at said source,

f. microphone on said diagnostic apparatus electrically coupled to said switch such that when said switch is activated verbal communication by said user to said source of assistance regarding said operating parameters of said diagnostic apparatus and said results of said routine is possible,

g. means at said source for receiving and analyzing said converted signal data,

h. a speaker on said apparatus activated by said switch, and

i. means for transmitting the results of said analysis to said user verbally through said speaker when said switch is activated.

2. A system as in claim **1** further comprising:

a. means in said apparatus for automatically generating and transmitting identification data representing said user to said source when said switch is activated,

b. a multiplicity of customer representative terminals at said source, and

c. means at said source for coupling said converted signal data from apparatus with a predetermined identification to a predetermined customer representative terminal at said source so that the user of said apparatus having a predetermined identification is always coupled to the same customer representative terminal at said source whenever said user activates said switch.

3. A system as in claim **2** further including a computer at said source comprising:

a. means for recognizing said identification data representing said user,

b. electronic data storage means having a corresponding data storage memory for each identified user, and

c. means for coupling said received converted signal data to said corresponding data storage memory for storage thereof so that a permanent record of said received converted signal data is maintained in said memory for each user.

4. A method of interactive communication between a user operated diagnostic apparatus and a remote source of assistance comprising the steps of:

a. performing a diagnostic routine on a specimen using said diagnostic apparatus,

b. generating signals representing results of said diagnostic routine and selected operating parameters such as operating voltage levels and calibration data,

c. actuating a switch on said apparatus for automatic dialing of a predetermined telephone number to contact said remote source of assistance when said switch is activated,

d. converting said generated signals to data for transmission to said source,

e. generating a control code with a keyboard to represent a selected one of each of said converted signals,

f. transmitting data representing a selected one of said converted signals to said source represented by said automatically dialed predetermined telephone number when a particular control code is generated with said keyboard,

g. coupling a microphone on said apparatus to said switch such that when said switch is activted verbal communication by said user to said source of assistance regarding said operating parameters of said diagnostic apparatus and said results of said routine is possible,

h. receiving and analyzing said converted signal data at said source, and

i. transmitting the results of said analysis to said user verbally through a speaker on said apparatus which is actuated by said switch.

5. A method as in claim **4** further comprising the steps of:

a. automatically generating and transmitting identification data representing said user to said source when said switch is activated,

b. providing a multiplicity of customer representative terminals at said source, and

c. coupling said converted signal data from said apparatus with a predetermined user identification to a predetermined customer representative terminal at said source so that the user of said apparatus having a predetermined identification is always coupled to the same customer representative terminal at said source whenever said user activates said switch.

6. A method as in claim **5** further comprising the steps of:

a. recognizing at said source said identification data representing said user,

b. providing electronic data storage means having a corresponding data storage memory for each identified user, and

c. coupling said received converted signal data to said corresponding data storage memory for storage thereof so that a permanent record of said received converted signal data is maintained in said memory for each user.

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